IN THE CLAIMS

1. (Currently amended) A method of cleaving an insoluble fusion protein at a cleavage site, the cleavage site having at least one aspartate-proline dipeptide, wherein the fusion protein comprises:

(a) a first component consisting of a fragment of a *Caulobacter crescentus* S-layer protein ~~which~~ wherein said fragment comprises a secretion signal and the C-terminal 120 amino acids of said *Caulobacter crescentus* S-layer protein; and

(b) a second component that is heterologous to *Caulobacter crescentus*;

the method comprising combining the fusion protein with an acid solution of a strength insufficient to solubilize the fusion protein for a time sufficient for cleavage of the fusion protein at said cleavage site, and wherein the first component remains insoluble in said acid solution after cleavage.

2. (Previously presented) The method of claim 1, wherein the second component becomes soluble in said acid solution after cleavage.

3. (Previously presented) The method of claim 1, wherein the acid solution has a pH of about 1.5 to about 2.5.

4. (Previously presented) The method of claim 1, wherein the acid solution has a pH of about 1.65 to about 2.35.

5. (Previously presented) The method of claim 1, wherein the method is carried out at a temperature in the range of about 30°C to about 50°C.

6. (Previously presented) The method of claim 1, wherein the method further comprises separating products cleaved from the fusion protein.

7-8. (Cancelled)

9. (Currently amended) A method of producing a protein heterologous to a *Caulobacter crescentus*, comprising:

(a) expressing a fusion protein from said *Caulobacter crescentus*, wherein said fusion protein comprises a first component and a second component, linked to each other by a cleavage site comprising at least one aspartate-proline dipeptide, wherein said first component consists of a fragment of an S-layer protein of said *Caulobacter crescentus*, said fragment comprising a secretion signal and the C-terminal 120 amino acids of said *Caulobacter crescentus* S-layer protein, and wherein said second component comprises said protein heterologous to said *Caulobacter crescentus*;

(b) combining the expressed fusion protein with an acid solution of a strength insufficient to solubilize the fusion protein for a time sufficient for cleavage of the fusion protein at said cleavage site, whereby the first component remains insoluble in said acid solution after cleavage;

(c) separating the second component from the insoluble first component thereby producing said protein heterologous to a *Caulobacter crescentus*.

10. (Previously presented) The method of claim 9, wherein the second component becomes soluble in said acid solution after cleavage.

11. (Previously presented) The method of claim 9, wherein the acid solution has a pH of about 1.5 to about 2.5.

12. (Previously presented) The method of claim 9, wherein the acid solution has a pH of about 1.65 to about 2.35.

13. (New) The method of claim 1 or claim 9, wherein said S-layer protein comprises the amino acid as set forth in SEQ ID NO: 5.